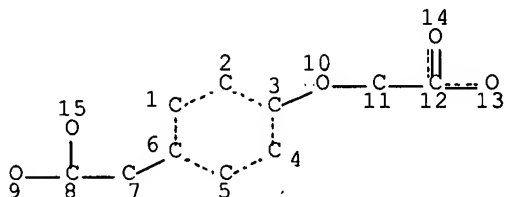


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Hale Mary  
8/10/07

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NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE  
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100.0% PROCESSED 461 ITERATIONS  
SEARCH TIME: 00.00.01

3 ANSWERS

FILE 'MEDLINE' ENTERED AT 08:38:00 ON 10 AUG 2007

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FILE 'CAPLUS' ENTERED AT 08:38:00 ON 10 AUG 2007  
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L4 0 FILE MEDLINE  
L5 0 FILE BIOSIS  
L6 0 FILE EMBASE  
L7 3 FILE CAPLUS

TOTAL FOR ALL FILES  
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L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2006:1173156 CAPLUS Full-text  
DOCUMENT NUMBER: 145:489007  
TITLE: Crystals of hydroxynorephedrine derivative  
hydrochloride 1/4 hydrate  
INVENTOR(S): Isawa, Hidetoshi; Toda, Michio  
PATENT ASSIGNEE(S): Kissei Pharmaceutical Co., Ltd., Japan

10526660

SOURCE: PCT Int. Appl., 22pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006118087	A1	20061109	WO 2006-JP308591	20060424
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: JP 2005-128731 A 20050426

AB Claimed are Et (-)-2-[4-[2-[[1S,2R]-2-hydroxy-2-(4-hydroxyphenyl)-1-methylethyl]amino]ethyl]-2,5-dimethylphenoxyacetate hydrochloride 1/4 hydrate (I) and I crystals. I crystals were obtained by reaction of 2-[4-(2-bromoethyl)-2,5-dimethylphenoxy]acetic acid Et ester with (1R,2S)-p-hydroxynorephedrine, followed by workup, treatment of the product in toluene with ethanol containing HCl, collection of I crystals, and drying. I crystals showed high solubility in water and high storage stability. I is used for the treatment of urinary incontinence and frequent urination (no data).

IT 476333-90-1

RL: RCT (Reactant); RACT (Reactant or reagent)

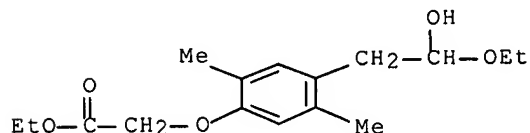
(preparation of crystals of hydroxynorephedrine derivative hydrochloride

1/4

hydrate for treatment of urinary incontinence and frequent urination)

RN 476333-90-1 CAPLUS

CN Acetic acid, [4-(2-ethoxy-2-hydroxyethyl)-2,5-dimethylphenoxy]-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:410227 CAPLUS Full-text

DOCUMENT NUMBER: 144:450508

TITLE: Synthesis of phenoxyacetic acid derivatives

INVENTOR(S): Winter, Eric; Reichel, Carsten; Gutheil, Dieter

PATENT ASSIGNEE(S): Boehringer Ingelheim International GmbH, Germany;  
Boehringer Ingelheim Pharma GmbH & Co. KG

SOURCE: PCT Int. Appl., 22 pp.

10526660

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006045519	A1	20060504	WO 2005-EP11269	20051020
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US 2007088174	A1	20070419	US 2005-253311	20051019
CA 2585037	A1	20060504	CA 2005-2585037	20051020
EP 1809591	A1	20070725	EP 2005-799211	20051020
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
PRIORITY APPLN. INFO.:			EP 2004-25432	A 20041026
			WO 2005-EP11269	W 20051020
OTHER SOURCE(S):			CASREACT 144:450508; MARPAT 144:450508	
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Phenoxyacetic acid derivs. [I; R1 = (un)branched C1-6 alkyl, H; X1, X2 = C1-6 alkyl; e.g., Et (-)-2-[4-[2-[[[(1S,2R)-2-hydroxy-2-(4-hydroxyphenyl)-1-methylethyl]amino]ethyl]-2,5-dimethylphenoxy]acetate hydrochloride, m.p. 196-197°] are prepared in high yield and selectivity by: (A) etherification of an acetal-containing phenol [II; R2 = (un)branched C1-6 alkyl; CR2R2 = 5- or 6-membered ring] with a carboxylate ester ZCH2CO2R1 (Z = leaving group) to give the acetal-containing phenoxyacetate (III); (B) reductively converting the acetal into an aldehyde (IV); (C) reductively aminating the aldehyde with 1-(4-hydroxyphenyl)-1-hydroxy-2-propylamine, preferably, 4-hydroxynorephedrine to give the corresponding free base I; and (D) optional salification of the free base with a pharmaceutically acceptable salt.

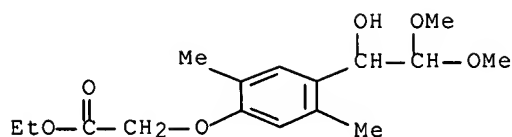
IT 476333-88-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in the synthesis of phenoxyacetic acid derivs.)

RN 476333-88-7 CAPLUS

CN Acetic acid, [4-(1-hydroxy-2,2-dimethoxyethyl)-2,5-dimethylphenoxy]-, ethyl ester (9CI) (CA INDEX NAME)



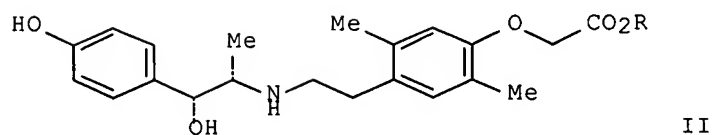
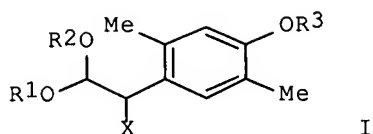
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:900773 CAPLUS Full-text  
 DOCUMENT NUMBER: 137:384652  
 TITLE: Preparation of  $\beta$ 3-adrenoceptor-stimulating phenoxyacetates and their intermediates  
 INVENTOR(S): Tanaka, Nobuyuki; Tamai, Tetsuo; Mukaiyama, Harunobu; Ishikawa, Takehiro; Kobayashi, Junichi; Akaba, Satoshi; Harada, Hiroshi  
 PATENT ASSIGNEE(S): Kissei Pharmaceutical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002338513	A	20021127	JP 2002-64840	20020311
CA 2494176	A1	20040401	CA 2002-2494176	20020905
WO 2004026807	A1	20040401	WO 2002-JP9034	20020905
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002328538	A1	20040408	AU 2002-328538	20020905
EP 1535897	A1	20050601	EP 2002-760810	20020905
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002015859	A	20050705	BR 2002-15859	20020905
SI 21701	A	20050831	SI 2002-20043	20020905
CN 1668572	A	20050914	CN 2002-829566	20020905
HU 200500596	A2	20060828	HU 2005-596	20020905
NZ 538535	A	20060831	NZ 2002-538535	20020905
MX 2005PA02459	A	20050603	MX 2005-PA2459	20050303
US 2006135605	A1	20060622	US 2005-526660	20050304
LV 13337	B	20060120	LV 2005-25	20050330
NO 2005001683	A	20050405	NO 2005-1683	20050405
PRIORITY APPLN. INFO.:			JP 2001-68023	A 20010312
			WO 2002-JP9034	W 20020905

OTHER SOURCE(S): MARPAT 137:384652  
 GI

*applicant*



AB Dimethylbenzenes I (R1 = lower alkyl; R2 = lower alkyl, H; R3 = H, CH2CO2R; R = lower alkyl; X = H, OH) are prepared as intermediates for the phenoxyacetates II (R = lower alkyl) or their salts. 2,5-Xylenol (100 g) was treated with glyoxal di-Me acetal and NaOH in H2O at 55° for 5 h to give 150 g I (R1 = R2 = Me, R3 = H, X = OH), which was converted into II (R = Et) in 4 steps.

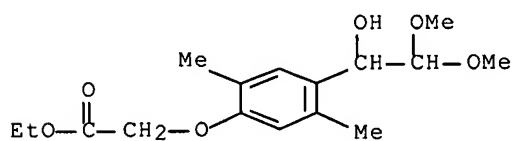
IT 476333-88-7P 476333-89-8P 476333-90-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of  $\beta$ 3-adrenoceptor-stimulating phenoxyacetates and their intermediates)

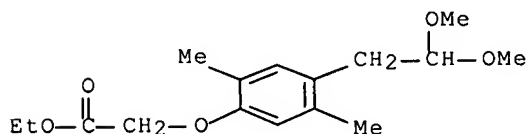
RN 476333-88-7 CAPLUS

CN Acetic acid, [4-(1-hydroxy-2,2-dimethoxyethyl)-2,5-dimethylphenoxy]-, ethyl ester (9CI) (CA INDEX NAME)



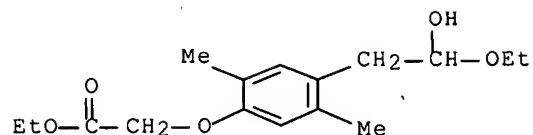
RN 476333-89-8 CAPLUS

CN Acetic acid, [4-(2,2-dimethoxyethyl)-2,5-dimethylphenoxy]-, ethyl ester (9CI) (CA INDEX NAME)



RN 476333-90-1 CAPLUS

CN Acetic acid, [4-(2-ethoxy-2-hydroxyethyl)-2,5-dimethylphenoxy]-, ethyl ester (9CI) (CA INDEX NAME)



=> s tanaka n?/au;s tamai t?/au;s mukaiyama h?/au;s ishikawa t?/au;s kobayashi  
j?/au;s akahane s?/au;s harada h?/au

L9 3268 FILE MEDLINE  
L10 3961 FILE BIOSIS  
L11 2864 FILE EMBASE  
L12 6758 FILE CAPLUS

TOTAL FOR ALL FILES

L13 16851 TANAKA N?/AU

L14 177 FILE MEDLINE  
L15 259 FILE BIOSIS  
L16 146 FILE EMBASE  
L17 613 FILE CAPLUS

TOTAL FOR ALL FILES

L18 1195 TAMAI T?/AU

L19 23 FILE MEDLINE  
L20 33 FILE BIOSIS  
L21 26 FILE EMBASE  
L22 99 FILE CAPLUS

TOTAL FOR ALL FILES

L23 181 MUKAIYAMA H?/AU

L24 3058 FILE MEDLINE  
L25 3642 FILE BIOSIS  
L26 2623 FILE EMBASE  
L27 9326 FILE CAPLUS

TOTAL FOR ALL FILES

L28 18649 ISHIKAWA T?/AU

L29 923 FILE MEDLINE  
L30 1116 FILE BIOSIS  
L31 892 FILE EMBASE  
L32 2275 FILE CAPLUS

TOTAL FOR ALL FILES

L33 5206 KOBAYASHI J?/AU

L34 35 FILE MEDLINE  
L35 55 FILE BIOSIS

10526660

L36 23 FILE EMBASE  
L37 83 FILE CAPLUS

TOTAL FOR ALL FILES

L38 196 AKAHANE S?/AU

L39 1075 FILE MEDLINE  
L40 1695 FILE BIOSIS  
L41 1025 FILE EMBASE  
L42 3968 FILE CAPLUS

TOTAL FOR ALL FILES

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=> s l13 and l18 and l23 and l28 and l33 and l38 and l43

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TOTAL FOR ALL FILES

L48 0 L13 AND L18 AND L23 AND L28 AND L33 AND L38 AND L43

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DICTIONARY FILE UPDATES: 9 AUG 2007 HIGHEST RN 944380-35-2

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predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

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E2 1 PHENYMAN/CN  
E3 0 --> PHENYOXYACETIC ACID/CN  
E4 1 PHENYPRESSIN/CN  
E5 1 PHENYRACILLIN/CN

=> s phenoxy(l)acet?

10526660

1321615 PHENOXY

4449504 ACET?

L49 428719 PHENOXY(L)ACET?

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=> dis his nofile

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D L3 QUE STAT

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TOTAL FOR ALL FILES

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TOTAL FOR ALL FILES

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TOTAL FOR ALL FILES

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TOTAL FOR ALL FILES

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L30 1116 SEA ABB=ON PLU=ON KOBAYASHI J?/AU  
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TOTAL FOR ALL FILES

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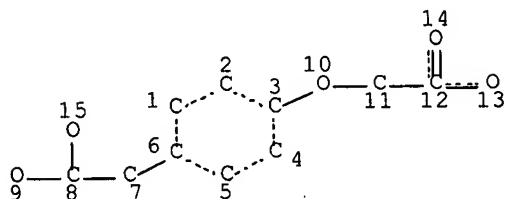
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      L35 AND L40
L46      0 SEA ABB=ON  PLU=ON  L11 AND L16 AND L21 AND L26 AND L31 AND
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L47      0 SEA ABB=ON  PLU=ON  L12 AND L17 AND L22 AND L27 AND L32 AND
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L\*\*\* DEL 428719 FILE CAPLUS

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NODE ATTRIBUTES:  
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE  
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100.0% PROCESSED 461 ITERATIONS  
SEARCH TIME: 00.00.01

3 ANSWERS

=> log y

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